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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,041	12/12/2001	James E. Van Scoyoc	EDWA-001	6545

7590 01/30/2004

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EXAMINER

SAETHER, FLEMMING

ART UNIT PAPER NUMBER

3679

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/017,041

Applicant(s)

SCYOOC, JAMES E. VAN

Examiner

Flemming Saether

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,6,7,9-11 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Election/Restriction***

Claims 12-20 remain withdrawn as being directed to a not elected group. .

***Claim Rejections - 35 USC § 103***

Claims 1, 4, 6, 7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hindle (H1258) in view of Schiefer (US 4,730,966) and Terrizzi (US 5,407,312). Hindle discloses a fluid flow bolt (see Fig 3) comprising a enlarged head (32) and a plurality of three equally spaced channels (50) formed on the shank extending from an end towards the head completely through the threading (see Fig. 3). The channels formed to have a depth shown to be at least 15% greater than the thread height. Hindle does not disclose the channels having a V-shape nor the channels being in a spiral configuration along the shank. Schiefer discloses channels (13') formed in a threaded portion of a bolt to have a V-shaped cross-section (see Fig. 3). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to make the channel of Hindle in a V-shape as disclosed in Schiefer in order to save on material as discussed therein. Terrizzi teaches the equivalence of spiral (Fig. 8) and longitudinal channels (Fig. 1). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to make the longitudinal channel of Hindle in a spiral in view of the teaching of Terrizzi.

Claims 3 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hindle in view of Schiefer as applied to claims 1, 4, 6, 7 and 9-11 above, and further in

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view of Cook (US 2,037,066). Modified Hindle discloses the V-shaped grooves having a rounded narrow portion (see Fig. 3 of Schiefer) but does not disclose the rounded broad ends. Cook teaches to form the form the outer ends of a channel as rounded (at 16, 17). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to provide the channels of modified Hindle with rounded outer ends as disclosed in Cook in order to provide smooth edges. The smooth edges are described as preventing injury (column 2, lines 43-47) which would have been found desirable in modified Hindle.

### ***Response to Remarks***

The rejection under section 102 has been withdrawn in view of the amendment to claim 1. However, the rejection under section 103 has been maintained.

Applicant argues that Hindle does not disclose the spiral V-shaped channel. As noted in the above rejection, the examiner agrees but, also as in the above rejection the examiner maintains that Terrizzi and Schiefer fairly teach the features lacking in Hindle.

The examiner agrees with applicant's understanding of Terrizzi but, nonetheless the reference still teaches that it was known at the time the invention was made to substitute spiral grooves, as seen in Figs. 8, 9 and 11 in Terrizzi, for longitudinal grooves, as seen in Figs. 1 and 2 in Terrizzi. As such the skilled artisan would have recognized the substitution also in Hindle. Furthermore, the examiner disagrees that

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Terrizzi is non-analogous art because both Hindle and Terrizzi are externally threaded screws and therefore, the skilled artisan would have recognized the teachings of both.

Applicant lastly argues that Schiefer does not disclose the V-shaped channels that are spiral in structure. In response, Schiefer is only relied upon for the V-shaped channel. The V-shaped channel is disclosed in Terrizzi. In that regard, looking at Fig. 3 in Schiefer the V-shaped channels are clearly shown.

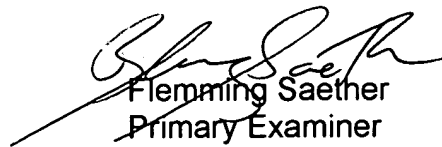
### ***Conclusion***

This action is not made final because the rounded broad ends should have been rejected in the previous office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 703-308-0182. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

  
Flemming Saether  
Primary Examiner  
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